

61. (New) A display device according to claim 55 wherein said pixel circuit comprises a first plurality of transparent conductive films and a second plurality of transparent conductive films extending across said first plurality of transparent conductive films.

62. (New) A display device according to claim 55 wherein said pixel circuit comprises pixel electrodes connected to TFTs.--.

REMARKS

Reconsideration and allowance of the above referenced application are respectfully requested. Claims 1, 2, 7, 8, 15, 17 and 22 have been amended. Claims 27-62 have been newly added.

Page 7 of the specification has been amended to summarize the passive and active matrix circuits that are disclosed in detail throughout the specification and the drawings as originally filed. No new matter is added.

Claim Rejections under 35 U.S.C. §112

Claims 1-26 stand rejected under 35 U.S.C. §112, first and second paragraphs, as allegedly failing to have support in the

specification and being indefinite. Applicants respectfully traverse the rejections.

The present specification describes in detail passive and active matrix circuits of LCD display devices. Each matrix circuit includes matrix elements that correspond to pixels of the LCD display. The drawings of record are directed to either a portion of the matrix element or the layout of the matrix circuit. It is well understood in the art that such passive and active matrix circuits are examples of pixel circuits where each matrix element represents a pixel element of a pixel circuit. Hence, the recited "pixel circuit" is fully supported by the specification and is definite under 35 U.S.C. §112. It is respectfully suggested that Claims 1-26 are patentable under 35 U.S.C. §112 and the rejections thereto be withdrawn.

Claim Rejections under 35 U.S.C. §103

Claims 1-14 stand rejected under 35 U.S.C. §103(a) as allegedly being obvious over Takemura. It is contended in the Office Action that, although Takemura does not explicitly disclose or show TFTs forming in the peripheral driver circuit region adhered to the substrate by a resin layer, these TFTs have

to adhere to the substrate by a resin layer. Office Action, pages 4-5. This contention, however, is respectfully traversed.

Takemura discloses fabrication of TFTs directly on a substrate. The active matrix circuit and the peripheral driver circuit comprising the TFTs are fabricated monolithically on the same substrate (Abstract and columns 4 and 5). Figures 2A-2E specifically illustrate the precessing steps. Such a monolithic structure is completely different from the LCD device recited in the amended Claim 1.

The amended Claim 1 recites "a driver circuit comprising thin film transistors that are formed from a substrate separate from said substrates" (emphasis added). See, e.g., figures 2A-2G in the present specification and the corresponding textual description. In contrast, the TFTs in Takemura are fabricated directly on the same substrate where the pixels of the LCD are formed. The amended Claim 1 also recites "a resin adhesive layer" and that the thin film transistors "are adhered to said one of the substrates by said resin adhesive layer." Nothing in Takemura suggests these limitations in any way.

One of advantages of the recited LCD device is that the TFTs of the driver circuit are separately fabricated from the LCD

panel. Hence, a substrate of a LCD panel is not directly subjected to processes that are generally required to fabricate TFTs. Unlike Takemura, TFTs of the driver circuit fabricated on another substrate are peeled off and adhered to one of the LCD substrates. This can significantly reduce the damage to the TFTs of the driver circuit due to stress on the LCD panel. Takemura fails to suggest this and other advantages associated with Claim 1.

Applicants respectfully suggest that the Examiner's contention that "those TFTs have to adhere to the substrate layer by a resin layer" would be technically impossible. Assuming, arguendo, that a resin adhesive layer is used in the Takemura as suggested by the Examiner, the adhesive layer would be between the amorphous silicon film 203 and an insulating film 202 over the substrate 201. Since the amorphous silicon film 203 is usually formed in a reaction chamber through a CVD or sputtering process, the adhesive layer would be exposed to a reduced pressure atmosphere in the reaction chamber. Such exposure is undesirable because the components of the adhesive layer would be vaporized and hence contaminate the reaction chamber.


Therefore, the LCD device recited in the amended Claim 1 is structurally different from Takemura and have distinct advantages. It is respectfully suggested that the amended Claim 1 is patentable over Takemura under 35 U.S.C. §103(a).

Claims 2-26 and the newly-added Claims 27-62 are also patentable based on the above arguments as well as their own merits. Therefore, all pending claims 1-62 are now in full condition for allowance. A formal notice to that effect is respectfully solicited.

If there are any other charges, or any credits, please apply them to Deposit Account No. 06-1050.

Respectfully submitted,

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